

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): An image processing apparatus for converting an interlaced image data to a non-interlaced ~~noninterlaced~~ image data, comprising:

a motion detection unit configured to compare ~~portion (3, 51) for comparing~~ pixel data of an interlaced image (~~pixel data $D_i(0)$ and $D_i(+2F)$ comprising field screen $P_i(0)$ and $P_i(+2F)$, hereinafter, be described by reference numerals of the field screen to which~~ belonging the pixel data in consideration of correspondence to drawings) to perform a motion detection;

a history value generation unit configured to generate ~~portions (52, 53) for generating~~ a history value (~~H_k~~) ~~showing~~ indicating the number of times that a determination is continuously made that the interlaced image is a still image, ~~to be “a still image”~~ based on a motion detection result (~~$D_{if}(0)$~~) from the motion detection unit ~~portion~~; and

a pixel data interpolation unit configured to mix ~~portion (4) for mixing~~ a pixel data $[[P_m]]$ generated by interpolation in a field and $[[a]]$ pixel data $[[P_s]]$ generated by interpolation between a plurality of fields, based on pixel data of the interlaced image at a mixture ratio (~~R_{mix}~~) in accordance with the motion detection result (~~$D_{if}(0)$~~) and the history value $[[H_k]]$, wherein the larger the history value $[[H_k]]$ is, the larger the amount of pixel data $[[P_s]]$ generated by interpolation between fields the pixel data interpolation unit ~~portion~~ $[[4]]$ mixes.

Claim 2 (Currently Amended): An image processing apparatus as set forth in claim 1, wherein said pixel data interpolation unit ~~portion~~ $[[4]]$ comprises;

an in-field interpolation unit configured to generate ~~portion (41) for generating~~ the pixel data $[[P_m]]$ by interpolation from $[[a]]$ pixel data (~~$P_i(+F)$~~) in a field ~~field~~;

an inter-field interpolation unit configured to generate ~~portion (42) for generating~~ the pixel data $[[P_s]]$ by interpolation from pixel data $(P_i(+F))$ and $P_i(+2F))$ in a plurality of fields ~~filed~~;

a pixel data mixing unit configured to mix ~~portion (43) for mixing~~ the pixel data $[[P_m]]$ from the in-field interpolation unit ~~portion (41)~~ and the pixel data $[[P_s]]$ from the inter-field interpolation unit ~~portion (42)~~ at a predetermined mixture ratio (R_{mix}) ; and

a mixture ratio setting unit configured to change ~~portion $[(44)]$ for changing~~ the mixture ratio (R_{mix}) determined by the motion detection result $(Dif(0))$ of the motion detection unit ~~portion (3, 51)~~ and the history value $[[H_k]]$ in such a way that the larger the history value $[[H_k]]$ is, the higher a ratio of the pixel data $[[P_s]]$ from the inter-field interpolation unit ~~portion (42)~~ becomes.

Claim 3 (Currently Amended): An image processing apparatus as set forth in claim 1, wherein said history value generation unit ~~portion (52, 53) generates~~ is configured to generate a history value $(H_k(+2F))$ for interpolation of an adjacent pixel in a field delayed by one field from a field where $[[a]]$ pixel data to be generated by the interpolation and updates with respect to each interpolation.

Claim 4 (Currently Amended): An image processing apparatus as set forth in claim 1, wherein said history value generation unit ~~portion (52, 53) generates~~ is configured to generate a history value $(H_k(+F))$ for an interpolation of an adjacent pixel in a field differing from a field where $[[a]]$ pixel data to be generated by the interpolation, ~~generates~~ generate a history value $(H_k(+2F))$ for an interpolation of an adjacent pixel in the same field where $[[a]]$ pixel data to be generated by the interpolation, and update ~~updates~~ respectively with respect to each interpolation.

Claim 5 (Currently Amended): An image processing method of converting an interlaced image data to a non-interlaced ~~noninterlaced~~ image data, comprising ~~the steps of:~~

~~motion detecting by~~ comparing pixel data ($P_i(0)$ and $P_i(+2F)$) of an interlaced image pixel-by-pixel between frames to perform a motion detection;

generating a history value (~~Hk~~) ~~showing~~ indicating the number of times that a determination is continuously made that the interlaced image is a still image, ~~to be~~ “a still image” based on a result of the motion detection; and

interpolating by mixing pixel data $[(P_m)]$ generated by interpolation in a field and pixel data $[(P_s)]$ generated by interpolation between a plurality of fields, based on pixel data of the interlaced image at a mixture ratio (~~R_{mix}~~) in accordance with the motion detection result (~~Dif(0)~~) and the history value $[(H_k)]$, wherein the larger the history value $[(H_k)]$ is, the larger amount of pixel data $[(P_s)]$ generated by interpolation between fields mixes.

Claim 6 (Currently Amended): An image processing method as set forth in claim 5, wherein said interpolating $[[step]]$ of pixel data further comprises;

in-field interpolating by generating the pixel data $[(P_m)]$ of a line having no pixel data in a field by interpolation from pixel data ($P_i(+F)$) in the field ~~field~~;

inter-field interpolating by generating the pixel data $[(P_s)]$ by interpolation from pixel data ($P_i(+F)$ and $P_i(+2F)$) in a plurality of fields ~~field~~;

mixing of pixel data by mixing the pixel data $[(P_m)]$ generated by the in-field interpolating and the pixel data $[(P_s)]$ generated by the inter-field interpolation unit portion (42) at a predetermined mixture ratio (~~R_{mix}~~); and

setting of a mixture ratio by changing the mixture ratio (~~R_{mix}~~) determined by the motion detection result (~~Dif(0)~~) of the motion detection and the history value $[(H_k)]$ in such

a way that the larger the history value $[(H_k)]$ is, the higher a ratio of the pixel data $[(P_s)]$ generated by the inter-field interpolating ~~interpolating~~ becomes.